



# Water Scarcity Mitigation Strategies in the Nile Basin: A Comparative Perspective in South Africa

Ukali Uwana<sup>1</sup>, Mphuthumgu Mthethwa<sup>2,3</sup>, Thembanani Nkabinde<sup>1,4</sup>, Gqozi Gqoza<sup>5,6</sup>

<sup>1</sup> University of Pretoria

<sup>2</sup> Cape Peninsula University of Technology (CPUT)

<sup>3</sup> Department of Advanced Studies, University of KwaZulu-Natal

<sup>4</sup> Department of Research, University of Fort Hare

<sup>5</sup> University of Fort Hare

<sup>6</sup> University of KwaZulu-Natal

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**Correspondence:** [uuwana@yahoo.com](mailto:uuwana@yahoo.com)

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## Author notes

*Ukali Uwana is affiliated with University of Pretoria and focuses on African Studies research in Africa.*

*Mphuthumgu Mthethwa is affiliated with Cape Peninsula University of Technology (CPUT) and focuses on African Studies research in Africa.*

*Thembanani Nkabinde is affiliated with Department of Research, University of Fort Hare and focuses on African Studies research in Africa.*

*Gqozi Gqoza is affiliated with University of Fort Hare and focuses on African Studies research in Africa.*

## Abstract

Water scarcity is a critical issue in the Nile Basin, affecting both natural ecosystems and human societies. In South Africa, water management strategies are essential for mitigating conflicts arising from scarce resources. The research employs a comparative analysis of existing policies and practices documented in governmental reports, academic journals, and NGO publications. A thematic coding approach is used to identify common themes across different case studies. Data from South African regions indicate that the implementation of water-saving technologies has shown significant reductions in per capita water usage by up to 20% in some districts. The study concludes that while there are promising examples of mitigation strategies, further research is needed to determine their scalability and long-term impacts across different Nile Basin settings. Recommendations include the need for more comprehensive policy integration at both national and local levels, along with increased community engagement in water resource management. Nile Basin, South Africa, Water Scarcity Mitigation Strategies, Comparative Analysis

**Keywords:** Nile Basin, Water Scarcity, Conflict Resolution, Hydrology, Irrigation Systems, Sustainable Development, Ecological Economics

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